ABSTRACT

Engineered microparticles, libraries of microparticles, and methods relating thereto. The microparticles are distinguishable based on differences in dielectric response to an applied electric field. In different embodiments, the dielectric differences may be engineered through, but not limited to, dielectrically dispersive materials, surface charge, and/or fluorescence. Gangliosides may be incorporated with the microparticles to control aggregation. Vesicles including erythrocyte ghosts may be used as a basis for microparticles. The microparticles may utilize a biotin streptavidin system for surface functionalization.